# (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATEN

## (19) World Intellectual Property Organization International Bureau



# 

(43) International Publication Date 5 February 2004 (05.02.2004)

## (10) International Publication Number WO 2004/011507 A1

- (51) International Patent Classification7: C08F 10/06, C08L 23/12, C08F 297/08, 2/34, C08J 5/18
- (21) International Application Number:

PCT/EP2003/008258

- (22) International Filing Date: 23 July 2003 (23.07.2003)
- (25) Filing Language:

English

(26) Publication Language:

English

- (30) Priority Data: 24 July 2002 (24.07.2002) DE 102 33 700.4 US 60/401,947 8 August 2002 (08.08.2002)
- (71) Applicant (for all designated States except US): BASELL POLYOLEFINE GMBH [DE/DE]; Brühler Strasse 60, 50389 Wesseling (DE).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): DAHN, Ulrich, Clemens [DE/DE]; Knorrstrasse 147, 80801 München (DE). BIDELL, Wolfgang [DE/BE]; Rue Gabrielle 4, B-1640 Rhode-St.Genese-Bruxelles (BE). ZIMMER-MANN, Hans-Jürgen [DE/DE]; Weiherweg 50, 64625 Bensheim (DE). ROESCH, Joachim [DE/DE]; Friesenstrasse 16, 67063 Ludwigshafen (DE). SCHWEIER, Guenther [DE/DE]; Friedrich-Pietzsch-Strasse 14, 67159 Friedelsheim (DE).

- (74) Agent: COLUCCI, Giuseppe; Basell Poliolefine Italia S.P.A, Intellectual Property, P.le G. Donegani 12, I-44100 Ferrara (IT).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

### Declaration under Rule 4.17:

of inventorship (Rule 4.17(iv)) for US only

### Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: AT LEAST TWO-STAGE PROCESS FOR PREPARING PROPYLENE POLYMER COMPOSITIONS

(57) Abstract: The present invention relates to a process for preparing propylene polymer compositions in in at least two-stage process wherein, in a first stage, a propylene homopolymer or a propylene copolymer comprising propylene and at least a CZ-CIO-lalkenes other than propylene, containing at least 85% by weight of propylene, is prepared by polymerization and, in a second stage, ethylene and at least a comonomer selected from propylene and C4-C,o1alkenes are polymerized to give an ethylene polymer, comprising at least 90% by weight of ethylene, wherein the amount of the ethylene polymer in the propylene polymer composition ranges from 10 to 50% by weight and the propylene polymer composition has a melt flow rate MFR, in accordance with ISO 1133 at 230°C and 2.16 kg, of from 2 to 50 g/10 min.

